Water-Data Report 2011

01371500 WALLKILL RIVER AT GARDINER, NY

Upper Hudson Basin
Rondout Subbasin

LOCATION.--Lat 41°41′10″, long 74°09′56″ referenced to North American Datum of 1927, Ulster County, NY, Hydrologic Unit 02020007, on left bank 400 ft upstream from bridge on U.S. Highway 44, 500 ft downstream from Shawangunk Kill, and 0.7 mi northwest of Gardiner.

DRAINAGE AREA.--695 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--September 1924 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 185.70 ft above NGVD of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Regulation at low flows by dams upstream and some diversions for municipalities and irrigational purposes. Satellite and telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,800 ft^3/s, Oct. 16, 1955, gage height, 19.81 ft; minimum discharge, 9.5 ft^3/s, Sept. 28, 1964; minimum gage height, 1.49 ft, Aug. 7, 1999.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,400 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 1	1630	6,840	7.48
Mar 7	1015	17,900	13.19
Mar 11	1515	17,300	12.90
Apr 17	0915	8,590	8.46
May 19	1000	10,600	9.52
Jun 23	2145	8,210	8.25
Aug 16	0530	9,150	8.76
Aug 28	1930	*30,300	*18.92
Sep 8	1545	27,500	17.67
Sep 29	1800	15,000	11.81

Minimum discharge, 69 ft^3/s, Aug. 3, gage height, 1.98 ft.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 01371500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/01371500.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4,010	457	1,930	e690	e530	e4,370	1,330	1,940	1,050	895	370	10,800
2	4,060	396	4,560	733	e520	e3,460	1,670	1,620	871	756	250	9,260
3	2,710	321	3,210	1,100	e520	e2,810	1,570	1,430	742	890	178	7,700
4	2,080	429	2,640	1,140	e520	e2,500	1,360	1,710	616	1,890	235	6,370
5	1,570	1,340	2,080	942	e540	e2,910	1,430	2,200	552	1,420	312	5,340
6	1,300	1,480	1,620	774	e710	6,320	1,720	1,740	524	942	307	8,970
7	1,080	1,080	1,330	732	e720	16,600	1,590	1,370	502	740	1,300	14,100
8	855	849	1,110	639	e710	11,300	1,640	1,170	410	617	2,350	22,200
9	671	800	890	e620	e700	8,160	1,480	1,030	397	984	1,770	18,900
10	527	725	660	e620	e700	8,700	1,310	957	382	1,160	1,650	13,600
11	430	644	729	e620	e690	15,300	1,190	862	370	930	965	12,500
12	399	564	1,090	e600	e690	11,400	1,170	730	592	567	626	11,100
13	438	517	3,240	e680	e690	8,660	2,420	716	700	493	480	9,250
14	408	486	2,530	e680	e730	7,800	2,940	661	760	409	452	7,570
15	565	464	1,670	e680	e1,020	7,020	2,310	721	835	351	2,420	6,320
16	676	458	1,290	e670	e1,430	6,440	1,990	2,280	685	315	8,020	4,790
17	640	966	1,140	e650	e2,020	5,390	7,180	4,350	969	278	5,780	3,000
18	538	1,280	988	e660	e3,230	3,830	5,500	5,200	1,800	254	e4,060	2,120
19	470	1,060	834	e670	e4,910	2,850	4,630	9,450	1,270	237	e2,900	1,720
20	418	842	726	e700	e4,270	2,260	4,440	6,770	964	258	e2,100	1,490
21	375	716	699	e690	e3,940	2,080	3,660	5,260	765	246	e1,500	1,380
22	371	640	673	e670	e3,890	2,460	2,810	4,680	1,200	220	e1,300	1,930
23	356	586	642	e660	e3,580	2,330	3,170	3,930	5,260	197	1,180	3,170
24	325	559	588	e650	e3,230	2,260	3,570	3,450	6,130	181	1,030	5,300
25	319	526	550	e650	e3,630	2,360	2,880	2,780	4,100	186	908	3,570
26	297	611	492	e650	e3,500	2,080	2,460	2,180	2,820	245	894	2,660
27	590	769	e480	e640	e3,230	1,810	2,380	1,770	2,120	387	878	2,210
28	1,080	678	e630	e630	e3,340	1,590	2,950	1,530	1,550	361	19,600	4,700
29	866	581	e880	e620	---	1,420	3,190	1,300	1,700	313	21,100	12,500
30	666	542	e780	e580	---	1,290	2,400	1,360	1,290	693	12,600	11,200
31	543	---	e710	e550	---	1,220	---	1,240	---	519	11,400	---
Total	29,633	21,366	41,391	21,590	54,190	158,980	78,340	76,387	41,926	17,934	108,915	225,720
Mean	956	712	1,335	696	1,935	5,128	2,611	2,464	1,398	579	3,513	7,524
Max	4,060	1,480	4,560	1,140	4,910	16,600	7,180	9,450	6,130	1,890	21,100	22,200
Min	297	321	480	550	520	1,220	1,170	661	370	181	178	1,380
Cfsm	1.38	1.02	1.92	1.00	2.78	7.38	3.76	3.55	2.01	0.83	5.06	10.8
In.	1.59	1.14	2.22	1.16	2.90	8.51	4.19	4.09	2.24	0.96	5.83	12.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	621	1,002	1,271	1,253	1,416	2,359	1,925	1,149	780	473	482	580
Max	4,875	3,407	3,773	4,054	3,881	5,947	5,466	4,087	3,688	2,735	3,513	7,524
(WY)	(2006)	(1928)	(1997)	(1996)	(2008)	(1936)	(1983)	(1989)	(1972)	(1928)	(2011)	(2011)
Min	58.2	76.1	149	102	226	444	463	239	98.2	33.6	21.6	18.9
(WY)	(1965)	(1965)	(1999)	(1925)	(2002)	(2002)	(1946)	(1941)	(1965)	(1966)	(1966)	(1964)

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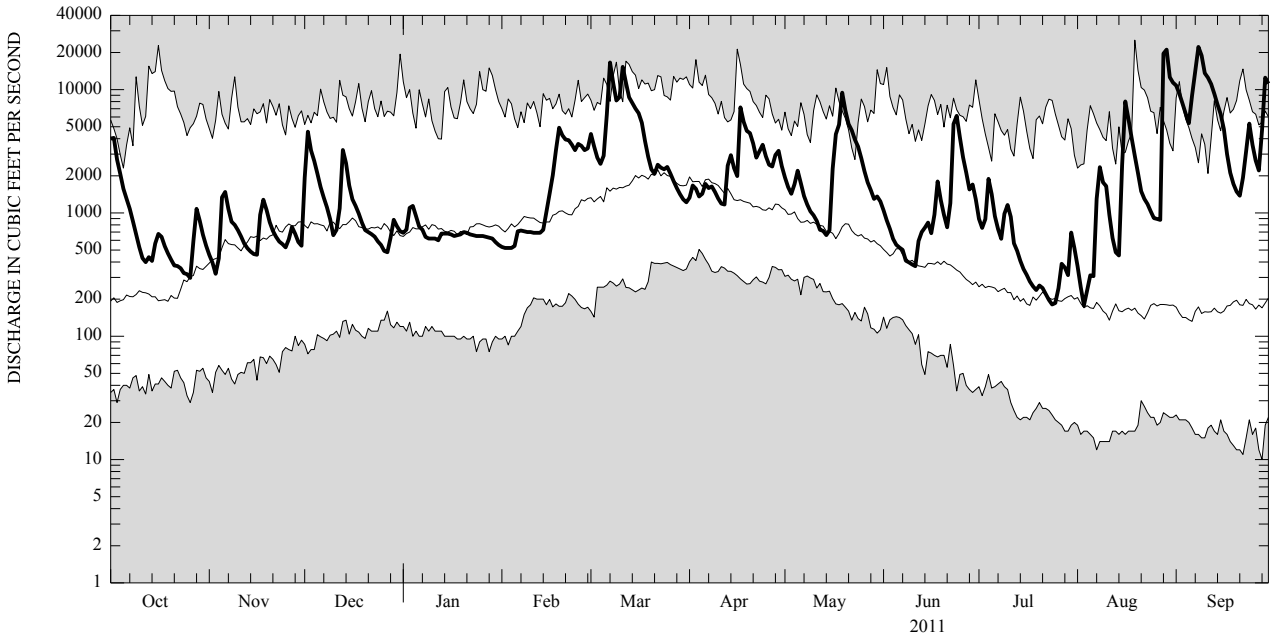
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1925 - 2011	
Annual total	428,907		876,372			
Annual mean	1,175		2,401		1,107	
Highest annual mean					2,401	2011
Lowest annual mean					390	1965
Highest daily mean	12,400	Mar 14	22,200	Sep 8	25,200	Aug 19, 1955
Lowest daily mean	35	Sep 26	178	Aug 3	10	Sep 28, 1964
Annual seven-day minimum	39	Sep 20	218	Jul 19	13	Sep 17, 1964
Annual runoff (cfsm)	1.69		3.45		1.59	
Annual runoff (inches)	22.96		46.91		21.65	
10 percent exceeds	3,130		5,920		2,720	
50 percent exceeds	588		1,100		594	
90 percent exceeds	74		415		109	



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.